

## The Collembola of South Africa—3:

### **The Genus *Lepidokrugeria***

by

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In southern Africa, the family Entomobryidae appears to be by far the most well represented family of the Collembola, in the number of both species and individuals. The new monotypical genus described here differs from other entomobryid genera in that its representatives bear striking adornments on the first and second segments of the antennae. In this, the genus resembles *Lepidoregia* Delamare-Deboutteville, 1948, which has 9 strong ciliate setae arranged transversely around the base of the second segment of the antenna. However, the differentiated setae in the new genus are more numerous, are of several different types and are carried on the first two segments of each antenna. The type-species has so far been found only in the Eastern Transvaal Lowveld and Moçambique.

### ***LEPIDOKRUGERIA* gen. nov.**

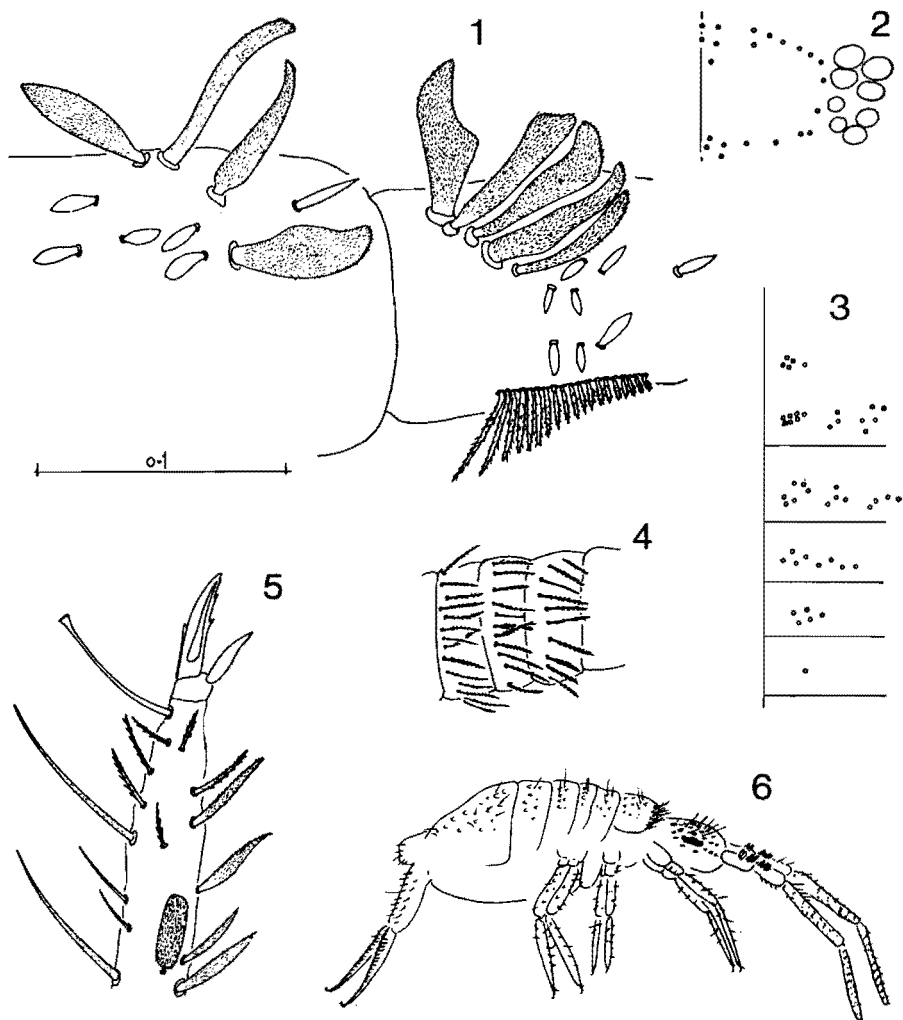
The characters separating this genus from *Seira* and *Lepidoregia* are easily visible (fig. 1). Firstly, a cluster of very broad, finely ciliate setae of characteristic shapes is carried proximally on ant. II, accompanied by several short, broad setae. A similar but rather more scattered group is carried distally on ant. I, again accompanied by several short broad setae and also by a longer, pointed seta situated distally. Secondly, a row of about 20 strongly ciliate setae is carried longitudinally on ant. II, not transversely as in *Lepidoregia* where nine such setae form a coronet. Otherwise of entomobryid appearance (fig. 6) with long antennae, the two distal segments of which are annulated. A small protrusible vesicle is carried terminally on ant. IV. Eyes 8+8. Mesonotum protruding slightly over the rear of the head. Body with many scales. Insertions of brushed macrosetae on tergites form a pattern which is constant for a species. Furca long, dens crenulate and annulate, macro falcate. Claw large, with a few minute teeth, usually three pseudonychia dorsally and a strong clavate tenent seta.

Type-species *Lepidokrugeria meyeræ* spec. nov.

### ***Lepidokrugeria meyeræ* spcc. nov., figs. 1-6**

The antennae are long, ant. IV and III annulate, with rings of ciliate setae and a few smooth sensory setae (fig. 4). Ant. I and II bear many scales, long pointed macrosetae and normal ciliate setae. In addition, ant. II carries proximally a cluster of five specialized setae of characteristic shape on its dorsum and a longitudinal row of

about 20 strongly ciliate setae ventrally. Next to this row on the lateral aspect of the segment are some nine or ten short broad setae. Ant. I carries, distally, one short pointed smooth seta, four strong broad specialized finely ciliate setae and again several short broad setae (fig. 1).



Figs. 1-7. *Lepidokrugeria meyeri* gen. et spec. nov. 1. Specialized setae on ant. I & II. 2. Cephalic macrosetae and eyes. 3. Dorsal macrosetae. 4. Annulations on ant. III. 5. Tibiotarsus III. 6. Habitus.

The lengths of the various segments of the holotype, measured along the mid-dorsal line, are: ant. IV 595  $\mu$ , ant. III 490  $\mu$ , ant. II 245  $\mu$ , ant. I 210  $\mu$ , head 420  $\mu$ ,

th. II 245  $\mu$ , th. III 175  $\mu$ , abd. I 125  $\mu$ , abd. II 155  $\mu$ , abd. III 195  $\mu$ , abd. IV 735  $\mu$ , abd. V 105  $\mu$ , abd. VI 15  $\mu$ , manubrium 455  $\mu$ , dens 560  $\mu$ , mucro 35  $\mu$ . The length of an antenna is 1.5 mm; the head plus body, 2.2 mm; and the furca 1.0 mm. The head carries 8+8 eyes on dark eyepatches, many dark brown scales and a few macrosetae, some brushed but the majority pointed (fig. 2). The tergites also carry many similar scales, with brushed macrosetae in a definite pattern (fig. 3), of which that on th. III and abd. I gives the macrosetal formula of 14-8. The medial cluster on th. II has four or five such macrosetae and the posterior cluster 14, occasionally 15. One lasiotrichia is carried on abd. II, two on abd. III and at least three on abd. IV. Tenaculum with four teeth each side and a median seta. Legs with scales and long pointed macrosetae. Femur with one long lasiotrichia proximally, tibiotarsus with two. The latter also with some thicker ciliate setae (fig. 5). Trochanteral organ of about 20 setae. Claws long, pointed, with three prominent teeth on the medial lamina at one-eighth, one-quarter and one-half the distance to the tip (fig. 5) and a minute tooth about halfway along the lateral lamina. Three dorsal pseudonychia present, the middle one smaller than the other two. Unguiculus broadly lanceolate, two-thirds the length of the claw. Tenent seta strong. Genital papilla with several thickened ciliate setae. No sexual differentiation noted.

**MATERIAL EXAMINED.** Holotype and three paratypes from dead leaves, Letaba River, Kruger National Park N.237, Tvl., 14.i.1964 (*T. J. Coates*) AcV 64/94. About 30 other specimens, which are not designated as paratypes, from the Kruger National Park, Groblersdal and Machava, Moçambique.

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#### REFERENCE

- DELAMARE-DEBOUTTEVILLE, C. 1948. Recherches sur les Collemboles termitophiles et myrmecophiles (Ecologie, Ethologie, Systématique). *Archs. Zool. exp. gén.* **85**: 265-425.

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